



SmartFCI™

By Aclara

Used on its own or in conjunction with Aclara's line of Grid Monitoring smart line sensors, Aclara's SmartFCI™ is a simple, yet extremely powerful fault indicator designed for use on a wide range of circuit locations. Aclara's SmartFCI™ is easy to install in minutes by a single lineman with a hotstick. With a single model that is remotely configurable, there is no need to order and stock multiple models based on different fault trigger or reset parameters. The line-mounted, battery-powered, self-contained all-in-one device avoids the need for pole mounted equipment or provisioning secondary power. With a factory configured integrated radio, there is no need to dispatch networking engineers to configure devices. Critical fault alarms and load profile data can be reported directly to SCADA using DNP3 or to Aclara's purpose-built Sensor Management System (SMS) software for rich visibility of network conditions.

Features

- Local and remote fault indication
- 1% accuracy load & fault current up to 17kA
- In-rush restraint
- Daily load profile reporting
- "O Amp" operation
- Integrated backhaul radio and GPS
- Remotely configurable parameters for fault trigger and fault indication
- Automatic Phase ID
- DNP3 interface to SCADA
- Aclara Sensor Management System
- (SMS) management and analytics
- Line mounted, hotstick install
- Conductor sizes up to 1.5"
- Fault waveform capture

General

Adjacent Cable Immunity	25 kA at 14"
Alarms	Permanent Fault;Momentary Fault;Line Disturbance;Outage (Loss of Current / Restoration)
Antenna Type	Internal, omni-directional wide band 5G/4G antenna
Communication Method	Integrated LTE Cat-M1 cellular, (17 world-wide bands) Aclara RF (future)
Compatible Devices	DNP3 and Aclara SMS software
Data Logging	Fault Current, up to 17kA, +/- 1% Load Current <100A; maximum error +/- 1A 100-600A; maximum error +/- 1%



Fault Reset	Hourly load profile data reported once per day
Fault Trigger	Fault LED Automatic Reset Time, configurable up to 24 hrs
Fault Withstand	di/dt, RMS threshold, remotely configurable
GPS	25 kA, 170 ms
Indicator	Location and time-stamp reference
Ingress Protection	360° visibility, 150m range. Configurable blink duration up to 24 hrs. Permanent & Momentary faults.
Life Expectancy	IP66 per IEC 60529
Material	15+ years
Mounting Type	UV stabilized polycarbonate
On-board Non-volatile Data Storage	Line mounted, clamshell design. Hotstick or insulated glove installation
Operating Temperature	Up to 10 events, 4 fault waveforms, and >1 week load current data
Oscillography & Waveform Capture	-40°C to +60°C (-40°F to +140°F), Complies with IEEE 495 Temperature, AC2Cycling Test to +85 °C
Storage Temperature Range	Fault Current Up to 4sec. total, up to 100 cycles pre-trigger COMTRADE export via Aclara SMS
Test - Sample Text	-40°C to +85°C (-40°F to +185°F)
	32 samples/cycle

Dimensions

Height	5.8 in
Length	11.2 in
Weight	5.8 lb
Width	4.9 in

Electrical Ratings

Frequency Rating	50-60 Hz
Power Device	Lithium battery pack, field replaceable, battery life gauge
Voltage Rating	Up to 69 kV

Conductor Related

Conductor Size	#6 to 1590 kcmil (approx. 0.162 to 1.5 diameter)
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Certifications And Compliance

Certified Listed	<ul style="list-style-type: none">• IEEE 495-2007, Testing Faulted Circuit Indicators• FCC Part 15, Electromagnetic Interference• IEC 61000-4-2, Electrostatic Discharge• IEC 61000-4-3, Radiated, Radio-frequency and Electromagnetic Immunity• IEC 61000-4-4, Electrical Fast Transient
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- IEC 61000-4-5, Surge Immunity
- IEC 61000-4-6, Conducted Immunity
- IEC 61000-4-8, Power Frequency Magnetic Field
- IEC 61000-4-9, Pulse Magnetic Field
- IEC 61000-4-10, Damped Oscillatory Magnetic Field
- IEC 61000-4-12, Ring Wave Immunity
- IEC 61000-4-18, Oscillatory Waves Immunity
- IEC 60695-1-30, -7-1, Fire Hazard
- IEC 60255-21-1, -2, Vibration, Shock and Bump
- IEC 60068, Environmental, Corrosion, Mechanical Vibration and Impact
- ISTA 1A, Transportation Vibration and Drop
- RoHS
- WEEE
- REACH
- ISO 9001

Product Assets

[Specifications - SmartFCIâ„¢](#)